Gender Dimensions of Disaster Management: Building Resilience for Coastal Aquaculture and Fishing Communities in the Philippines

Morgan Chow* and Hillary Egna
Feed the Future Innovation Lab for Collaborative Research on Aquaculture & Fisheries
Oregon State University, Corvallis, OR 97330
morgan.chow@oregonstate.edu

Aquaculture & Fisheries + Disaster + Gender

- Small-scale aquaculture and fisheries play an increasingly important role in contributing to better nutrition and food security. However, these practices are vulnerable to severe weather and many nations that invest in fisheries and aquaculture are subject to frequent typhoons.
- In 2013, the Philippines faced the largest storm to ever hit land. Typhoon Haiyan (Yolanda) affected an archipelago of low-lying islands with a population dependent on its surrounding natural resources. One year later, Typhoon Hagupit made landfall.
- The literature suggests that women are treated differently at all stages of disaster; from the initial warning period to the relief and recovery period.

Philippines and Typhoons:
- The Philippines suffers more natural hazards (e.g. earthquakes, volcanic eruptions, typhoons, floods, etc.) than any other country.
- 29 million Filipinos (36% of the population) depend on agriculture and fishing to make a living.

Typhoon Haiyan (Yolanda) 2013:
- An in-depth review of current and past literature on gender integration in disaster management in fishing and aquaculture communities;
- Secondary data collected for data triangulation;
- 28 Semi-structured interviews
  - The interviewees were selected via snowball sampling;
  - 17 women and 11 men were interviewed.

<table>
<thead>
<tr>
<th>Disaster Management</th>
<th>Fisheries/aquaculture</th>
<th>Women's improvement</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>International</td>
<td>3</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Provincial</td>
<td>2</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Municipal</td>
<td>2</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td>13</td>
<td>24</td>
</tr>
</tbody>
</table>

Figure 2: A schematic produced by PAGASA, NASA, and the Joint Typhoon Warning Center (JTWC) comparing super typhoons in Philippine Area of Responsibility (PAR).

Figure 3: The typhoon’s trajectory through the Visayas region of the Philippines, from east to west. Provinces are color coded according to the number of damaged homes. Black circles indicate study focus areas.

Gender Vulnerabilities:
- Mortality rates for women from disasters are often higher than those for men. Women also live at two times the poverty rate of men.
- Although they are vulnerable, women are successful at leading emergency committees and aiding in disaster management -- when given the opportunity.

Fisheries, Disaster Management, and Gender-Relevant Legislation in the Philippines:

Republic Act No. 8550 is one of the first major pieces of legislation to recognize gender differences in fisheries and aquaculture. It required the formal recognition of women who are directly and indirectly engaged in fisheries.

1998

Three-year Framework Plan for Women was passed in 2001, which provided guidelines on methods for preparing gender and development plans.

2001

APEC conducted a study examining the status of gender integration in disaster management in the Philippines.

2009

The Asia Pacific Economic Cooperation's (APEC) study on gender integration in disaster management in the Philippines, Thailand, Indonesia, and Japan revealed gaps in every phase of disaster management, and the status of gender integration in disaster management in the Philippines has yet to be re-evaluated.

This research conducted a follow-up analysis of the APEC study in order to assess how gender integration in disaster management has changed since 2009, with a goal of providing updated information to improve decision making in the future.

Results: General Trends in Responses

By scale:
- On a 1-3 scale, respondents indicated that women were often not consulted about disaster risk reduction and climate change issues.
- National: 3
  - Women's lack of representation and involvement in disaster management, including campaigns.
- Provincial: 2
  - “He gets the registration. But what about the women who don't have a husband...even women themselves don't consider themselves as women fishers...they were socialized to think they are only in support.”
- Municipal: 1
  - “There is no formal link [of] gender concerns with DRR. What’s lacking right now is how to apply a gender lens.”

“Seaweeds project is very successful, where in the women have the primary role in management.”

Table 1. Breakdown of interviewees by sector and scale of governance.

<table>
<thead>
<tr>
<th>Disaster Management</th>
<th>Fisheries/aquaculture</th>
<th>Women's improvement</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>International</td>
<td>3</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Provincial</td>
<td>2</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Municipal</td>
<td>2</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td>13</td>
<td>24</td>
</tr>
</tbody>
</table>

By sector:
- Women’s role in disaster risk reduction and climate change issues increases from national to municipal level.

“Women’s role in disaster risk reduction and climate change issues increases from national to municipal level.

“Women’s role in disaster risk reduction and climate change issues increases from national to municipal level.

Figure 4: Breakdown of response trends according to perceived level of gender integration.

Figure 5: Breakdown of response trends according to areas for improvement for disaster management.

References:
- Black circles indicate study focus areas.
- Women’s role in disaster risk reduction and climate change issues increases from national to municipal level.

Figure 6: Breakdown of response trends according to perceived level of gender integration.

Figure 7: Breakdown of response trends according to areas for improvement for disaster management.

“Women’s role in disaster risk reduction and climate change issues increases from national to municipal level.”

Figure 8: Breakdown of response trends according to perceived level of gender integration.

Figure 9: Breakdown of response trends according to areas for improvement for disaster management.

“Women’s role in disaster risk reduction and climate change issues increases from national to municipal level.”

Figure 10: Breakdown of response trends according to perceived level of gender integration.

Figure 11: Breakdown of response trends according to areas for improvement for disaster management.

“Women’s role in disaster risk reduction and climate change issues increases from national to municipal level.”